Information Technology Services Rate-Setting Process

Department of Administration
State Information Technology
Services Division

Performance Audits

Performance audits conducted by the Legislative Audit Division are designed to assess state government operations. From the audit work, a determination is made as to whether agencies and programs are accomplishing their purposes, and whether they can do so with greater efficiency and economy.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Members of the performance audit staff hold degrees in disciplines appropriate to the audit process.

Performance audits are performed at the request of the Legislative Audit Committee which is a bicameral and bipartisan standing committee of the Montana Legislature. The committee consists of six members of the Senate and six members of the House of Representatives.

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LEGISLATIVE AUDIT DIVISION

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June 2015

The Legislative Audit Committee
of the Montana State Legislature:

This is our performance audit of the rate-setting process for information technology services provided by the State Information Technology Services Division (SITSD) within the Department of Administration.

This report provides the Legislature information about the establishment of rates for information technology services offered by SITSD. The report includes recommendations for improving service and rate development and for lowering information technology costs for customers of SITSD. A written response from SITSD is included at the end of the report.

We wish to express our appreciation to SITSD personnel for their cooperation and assistance during the audit

Respectfully submitted,

/s/ Tori Hunthausen

Tori Hunthausen, CPA
Legislative Auditor

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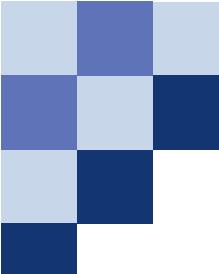
Performance Audit
Information Technology Service Rate-Setting Process
Department of Administration
State Information Technology Services Division

June 2015   14P-01   Report Summary

SITSD provides a wide range of information technology services across state government. Based on the rates established by SITSD, about $38 million in revenues were collected for these services during fiscal year 2014. SITSD can improve its rate-setting model and perform regular benchmarking of its rates in order to identify options for lowering information technology costs for its customers.

Context

State agencies rely on information technology (IT) systems and services to conduct many of their daily tasks. When provided by the State Information Technology Services Division (SITSD), state agencies pay a predetermined rate per unit of the service used. SITSD provides around 180 different IT services and establishes rates for these services on a biennial basis using a rate-setting model called the Financial Transparency Model (FTM). The overall concept for the calculation of rates within FTM is to determine the total costs of providing a service and to divide these total costs by the expected usage of the service. These rates are meant to reflect the full cost of each individual service and are designed to enable SITSD to recoup all expenses necessary to provide the service without making a profit. Total revenues from all services provided by SITSD were around $38 million in fiscal year 2014.

Results

Our audit work resulted in an overall conclusion that implementing FTM is a positive step and is a well-accepted type of methodology for setting rates for IT services. There are a few steps SITSD could take to improve FTM, but once completed, the resulting rates could be a valuable tool for agencies to use when making future IT purchase decisions.

Our audit work also included a benchmarking study which included ten of SITSD's service types and was conducted by a private consultant. While several of the service rates were assessed by the consultant as "best value" or slightly lower or comparable to most benchmarked rates, there were other services that were assessed as "less reasonable value." We determined, through a regular rate analysis, SITSD could identify services that are not competitive with outside rates and

could take steps to improve or discontinue those services.

The audit report makes four recommendations to improve SITSD service and rate development. These recommendations relate to:

- Selling certain services at "pass-through" rates directly from vendors,

- Ensuring cost allocations and usage estimates are as accurate as possible,

- Increasing customer involvement in service development, and

- Performing a regular review of rates against comparable benchmarks.

Recommendation Concurrence	
Concur	4
Partially Concur	0
Do Not Concur	0
Source: Agency audit response included in final report.	

Chapter I – Introduction

Introduction

State agencies rely on information technology (IT) systems to conduct many daily tasks. In Montana, IT is defined in statute as "hardware, software, and associated services and infrastructure used to store or transmit information in any form, including voice, video, and electronic data." Many of the services used by state agencies are provided by the State Information Technology Services Division (SITSD), a division of the Department of Administration. Agencies may also obtain IT services from private companies or through internal agency sources.

When provided by SITSD, state agencies pay a predetermined rate per unit of the service used. For example, if an agency wishes to use a rack at one of the state data centers from which it will deploy equipment, it pays a monthly amount per rack. Similarly, if an agency requires the services of an SITSD employee to develop an application, the agency is charged a set amount per hour for that person's time. Rates for these services are determined on a biennial basis and are meant to reflect the full cost of providing each individual service. This process is designed to enable SITSD to recoup all of the expenses necessary to provide the service without making a profit.

Objectives, Scope, and Methodologies

In about 2007, SITSD staff members started looking at options to improve transparency related to the cost of services it provides. The new model, known as the Financial Transparency Model (FTM), has been used to price SITSD services since the 2011 biennium. It replaced a previous model that simply allocated all SITSD costs to agencies on a per-employee basis. The new model has now been in place long enough to enable us to evaluate the implementation of the model and assess its effectiveness. The purpose of this report is to summarize our work related to whether the pricing model accurately reflects costs and whether SITSD operations result in fair pricing. To do this, we developed the following two objectives:

1. Does the rate-setting model accurately reflect the costs and usage volumes associated with SITSD services and does SITSD appropriately manage risks associated with the rate-setting process?

2. How do SITSD rates compare to rates for competitive services and what options exist to lower agency IT costs?

To achieve these objectives, we conducted the following methodologies:

- ◆ Obtained and reviewed rate information for all services offered beginning in fiscal year 2012 through those planned to be offered in fiscal year 2017. Due

to the timing of our audit, the 2017 biennium rates had only been approved by the Governor's Office of Budget and Program Planning.

- Selected and reviewed service rates from fiscal years 2012, 2013, and 2014, especially services generating significant revenue, services that are widely used, services with volatile rates, and services with rates that did not appear to reflect the value of the service.

- Interviewed SITSD personnel, including service providers and members of the executive team.

- Compared budgeted staff hours to recorded staff hours by service.

- Reviewed the consistency of billed rates by service for different customers and the consistency of the billed rates compared to the rates calculated by the model.

- Compared the estimated future usage of services by agencies to the actual amount used.

- Surveyed agency IT and finance personnel regarding their interaction with SITSD. The survey was sent to about 130 potential participants; 76 responded.

- Reviewed documentation related to service development such as Service Offering Descriptions and IT advisory group meeting minutes.

- Reviewed state laws, rules, and policies, as well as industry guidelines related to IT services.

- Hired an outside, independent IT consultant to perform rate benchmarking for selected services. This analysis focused on 10 selected service categories and their rates for fiscal year 2014.

- Interviewed IT personnel in other states related to the provision of IT services, how rates are set for those services, and how their customers are involved in the rate-setting process.

In addition to providing IT services to other government entities, SITSD also manages other programs, such as the 9-1-1 program and the Montana Broadband program, for which it receives direct funding. Our audit work focused on the services SITSD provides for which it charges other agencies and therefore did not include analysis of those other division programs.

Independence Statement

As part of state government, the Legislative Audit Division obtains some IT services through SITSD. Generally accepted government auditing standards require that auditors and audit organizations maintain independence so their opinions, findings, conclusions, judgments, and recommendations will be impartial (and viewed as impartial) by reasonable and informed third parties. As a consumer of SITSD services, the threat of self-interest could be of particular concern since the financial condition

of our organization could influence an auditor's judgment. As a safeguard against this potential threat, we contracted with an independent third party to conduct a portion of the work, namely the rate benchmarking analysis.

FTM: A Positive Step With Opportunities to Improve

Our overall conclusion is that implementing FTM is a positive step and is a well-accepted type of methodology for setting rates. There are a few steps SITSD could take to improve FTM, but once completed, the resulting rates can be a valuable tool for agencies to use when making future IT purchase decisions and for SITSD to use to identify services that are not competitive with outside rates.

Our work resulted in four recommendations to improve SITSD service and rate development. There are recommendations related to selling certain services at "pass-through" rates directly from vendors, ensuring cost allocations and usage estimates are as accurate as possible, increasing customer involvement in service development, and regular review of rates against comparable benchmarks to determine if services need to be improved or discontinued.

Report Organization

The remainder of this report includes additional background on SITSD services and rates and details our analysis of the objectives, including four recommendations. It is organized in three additional chapters:

- Chapter II–Background
- Chapter III–Service Development and Implementation of the Financial Transparency Model
- Chapter IV–Comparing Rates to Benchmarks

Chapter II – Background

Introduction

The State Information Technology Services Division (SITSD) is a division within the Department of Administration (department) which manages central computing and telecommunication services for state government as well as other functions such as planning, coordinating, training, and providing security of information resources throughout state government.

SITSD is currently comprised of around 200 employees who provide a wide range of information technology (IT) services to over 100 government customers, primarily state agencies. The majority of its funding comes from proprietary funds acquired by charging customers for its services. Currently, SITSD provides a total of around 180 different IT services, including things such as telecommunications hardware, web development services and support, managing statewide software agreements, and professional specialists. Additionally, SITSD provides some services known as enterprise services that are for the good of the entire state, such as the development of a statewide strategic IT plan and operation of a central state telephone answering service. Total revenues from all services were around $38 million in fiscal year 2014. State law requires SITSD to provide some of these services, while others are discretionary.

SITSD Responsibilities

The Montana Information Technology Act (MITA) defines information technology as "hardware, software, and associated services and infrastructure used to store or transmit information in any form, including voice, video, and electronic data." MITA also defines the role of the Department of Administration as the coordinator and primary provider of IT for government entities. The Act calls for the development of IT to be conducted "in an organized, deliberative, and cost-effective manner."

Among other requirements, MITA requires SITSD to provide statewide information technology standards, a central computer center, and a statewide telecommunications network. MITA gives SITSD the authority to set rates for its services and to contract with qualified outside providers, if it is "in the state's best interest." MITA also designates the Information Technology Board (ITB) as an advisory board to SITSD.

Statewide Information Technology Standards

Agencies are required by statute to submit IT plans and reports to the Department of Administration for approval. The department may reject, require modification, or approve those plans. Among other things, the agency plans must include new

investments in technology, a list of projects, resources, and budget information. Additionally, the plans must conform to the state strategic information technology plan, which is developed by SITSD.

Central Computer Center

A "Central computer center" is defined in statute as "any stand-alone or shared computer and associated equipment, software, facilities, and services administered by the department for use by state agencies." This is interpreted by SITSD as the two state data centers—one located in Helena and the other in Miles City. These data centers house racks of equipment used to store state data and serve applications.

Statewide Telecommunications Network

"Statewide telecommunications network" is defined in statute as "any telecommunications facilities, circuits, equipment, software, and associated contracted services administered by the department for the transmission of voice, video, or electronic data from one device to another." SITSD operates networks for these purposes (in part in conjunction with private vendors) and manages statewide contracts for wireless communication with several private providers.

Advisory Groups

Two primary groups exist to advise SITSD, the ITB and the Information Technology Managers Council (ITMC).

The ITB was established through legislation in 2001. The ITB is made up of a variety of agency, local, private, education, and legislative representatives. The ITB provides a forum for the development and deployment of intergovernmental information technology resources. The ITB is also designed to give input on statewide information technology standards and policies, the state information technology strategic plan, major information technology budget requests, rates, and other charges for services established by the department.

The ITMC is composed of IT managers representing state and local governmental agencies. This council was established by the department to review enterprise IT issues, to provide feedback regarding information management policies, and to review opportunities for the application of new information processing technology.

IT Not Consolidated in Montana

While SITSD is required by state law to provide certain services, agencies are able to provide their own IT services or seek alternative vendors for services. Many agencies

use some combination of internal, external, and SITSD sources for a variety of services. Although SITSD reviews and approves agency IT plans, it is ultimately the responsibility of each agency to ensure that its data are managed with an adequate level of security.

SITSD Goals and Objectives

SITSD's mission is to provide shared IT services to support the needs of the state and citizens of Montana. To meet this mission, SITSD established six goals. The first goal is "to be the IT service provider of choice." Meeting this goal means achieving the following objectives:

- Implement fair and equitable cost recovery using the Financial Transparency Model (FTM).
- Ensure good return on investment for stakeholders.
- Communicate with customers to clearly define their requirements and provide solutions that satisfy the community's business needs.

Organizational Structure

SITSD is organized by grouping similar types of services together under the direction of several bureaus. The leader in a respective bureau for a certain set of services is commonly referred to as a "service provider." Services are grouped into four main areas:

- **Business**: Includes telephone services, e-mail, support services, video conferencing, and other services.
- **Connectivity**: A variety of network connection options.
- **Professional**: Expert time in application development, database management, and other service areas.
- **Systems**: Mainly a variety of hosting options, but also infrastructure, software configuration, and storage.

Figure 1 depicts the organizational structure of SITSD.

Figure 1
Organization Chart for SITSD

State
Chief Information
Officer
(CIO)

Chief Information
Security Officer &
Deputy CIO

Chief Information
Security Officer
(CISO)

Chief Intergovernmental
Relations Officer
(CIRO)

Chief Technology
Officer
(CTO)

Chief Operations
Officer
(COO)

Chief Financial
Officer
(CFO)

Information Security
Bureau Chief
(ISB)

Network Technology
Services Bureau
Chief
(NTSB)

Enterprise
Technology Services
Bureau Chief
(ETSB)

Application
Technology Services
Bureau Chief
(ATSB)

Public Safety
Communications Bureau
Chief
(PSCB)

Project Management
Office
(PMO)

Financial
Management
Services Bureau
(FMSB)

Acquisition Management
Services Bureau Chief
(AMSB)

Business Services
Management Bureau
(BSMB)

Enterprise
Support Bureau
Chief
(ESB)

Policy and
Standards

Source: Compiled by the Legislative Audit Division.

IT Service Rates

Developing methods for managing the resources for internal IT services is a common challenge for many organizations, both public and private. There are many potential models for funding IT and there has been significant transformation in Montana over the past decade.

Previous Rate Models

Prior to 2010, IT services were partially funded based on what was then known as the desktop services rate. This was a rate charged to all agencies based on the number of employees at the agency. The rate was designed to cover all of the costs incurred by SITSD to provide IT services. While simple, this method meant agencies that used few services subsidized heavy users and there was no way to know for which services an agency was actually paying. With this flat rate there was no incentive for agencies to cut excess IT spending or to look into more cost-effective solutions for particular IT services. In addition to the desktop services rate, other services were funded based on utilization, like voice and mainframe services.

The Financial Transparency Model

Because of the problems with the desktop services rate, starting around 2007, SITSD began searching for an alternative way to recover costs. The preferred alternative would

enable SITSD to attach costs to each relevant service, provide a basis for comparing its rates to other sources, and provide transparency so customers could make informed decisions when selecting services. What it settled on is the system known today as the Financial Transparency Model (FTM). This model is based on the work of a well-known consultant in the field of IT budgeting and planning and author of a book on internal market economics.

According to this consultant, traditional budgeting does not link costs to IT services because costs are tracked according to cost area (travel, compensation, etc.) not to the service that requires the cost. He advocates for changing the paradigm so that the full cost of a service is known. Within his framework, there are five levels:

1. **Transparency**: Costs are linked only to high-level product sets, rather than individual services, but the cost model is documented and consistent.

2. **Fair allocations**: Costs are subdivided by client and utilization is considered.

3. **Demand Management**: Costs are further divided by service.

4. **Accuracy**: Costs are accurately allocated to services, including separate costs for sales that are within the IT organization itself.

5. **Rates**: Using the cost data from budgeting, rates are calculated by dividing the cost for a service by the usage rate to determine an appropriate rate per unit. By attaining this level, an organization is said to produce rates that are defensible and fair, and may be compared to alternatives such as outsourcing.

The way in which Montana has implemented this particular model places it at the top level, level five. SITSD uses FTM to calculate individual rates for services and charges agencies for these services based on consumption.

To implement FTM, SITSD first must identify the complete service catalog and appropriate sales unit for each service (for example, this could be by amount of storage, by number of devices, hours of support, etc.). Much of the catalog remains the same across biennia, though there are typically some changes to the service portfolio and/or sales units.

Then, SITSD collects all the relevant costs for each services. Costs are broken into several categories and are described in Table 1 (see page 10).

Table 1
Cost Categories Within the Rate-Setting Model

Cost Type	Description	Example
Compensation	SITSD staff time required to provide a service	Time for SITSD technician to install telephone
External	Arising from outside SITSD, usually from a private vendor	Hardware leasing expenses
Internal	From a source within SITSD, sold from one business unit to another	Data center rack space for application hosting service
Direct	Specifically related to one sale of a service	Time and materials to lay cable for a new office location
Indirect	Incurred for more than one sale or service	Training expenses for SITSD staff members
Overhead	Supports all lines of business within SITSD	Office space housing SITSD employees

Source: Compiled by the Legislative Audit Division from the Full-Cost Maturity Model.

Most SITSD services include more than one type of cost. Direct costs are typically easy to allocate since they are associated with a specific order. Indirect costs must be allocated across multiple customers or services.

SITSD asks agencies to estimate their expected usage of each service. All the costs for a service are divided by total expected use to calculate a per-unit rate that is charged to agencies using that service. Table 2 (see page 11) shows a hypothetical example of how a service rate would be calculated. Agencies are typically asked to forecast usage two years in advance. For example, SITSD requested expected usage for the 2017 biennium in May 2014. SITSD does retain the ability to change rates following the initial establishment of rates, but staff members reported that rates have never been raised during a biennium because of the negative effect it would have on agency budgets; though they have been lowered.

Table 2
Example Rate Analysis for a Hypothetical Service

Cost Type	Cost Name	Amount	Expected Units	Expense per Unit
Direct External	Compensation Cost	$100,000		$100
External Indirect	Software Licensing	$150,000		$150
External Indirect	Hardware Lease	$45,000		$45
External Indirect	Travel and Training	$5,000	1,000	$5
Internal Indirect	Data Center Rack Space	$30,000		$30
Internal Indirect	Network Connection	$20,000		$20
Overhead	Overhead Cost	$50,000		$50
Total		**$400,000**	**1,000**	**$400**

Source: Compiled by the Legislative Audit Division.

Internal Rates Charged Within SITSD

For SITSD services that are required by another internal service provider, there is an internal rate allocated to the using bureau. These rates are lower than external rates because they do not contain overhead expenses. Once a service is sold to an outside customer, the overhead is included. This is the practice recommended by the designer of FTM to accurately reflect the cost of services and to centrally manage support services.

Enterprise Services

Agencies are also charged a separate rate for enterprise services—these are SITSD activities that are conducted "for the good of the whole state." This includes things such as:

- Developing statewide policies and strategic planning
- Providing a statewide website and telephone operator
- Oversight of enterprise-wide security
- Managing enterprise-level IT procurement and contracts.

The total cost for enterprise services is about $6.1 million annually for fiscal years 2014-15. This amount is allocated to agencies by dividing the total costs by the average number of users with network access within each agency. Agencies are then allocated a percentage of the total enterprise services costs relative to the average number of users. This results in an allocation of about $450 per user.

ma## Services Billed by Usage

SITSD uses two billing systems to charge agencies for the actual amount of each service used. One system, the Expense Management System (EMS), handles telecommunications services while the other, the Service Utilization Billing System (SUBS) is used for all other services.

Total Revenue from Services

The total service revenue SITSD received from agencies was about $38 million in the most recent fiscal year. This amount has been relatively steady (with a slight general decrease) for the past five fiscal years. Figure 2 displays total proprietary fund revenue for fiscal years 2010 through 2014.

Figure 2
Total Proprietary Fund Revenue for SITSD
2010 through 2014
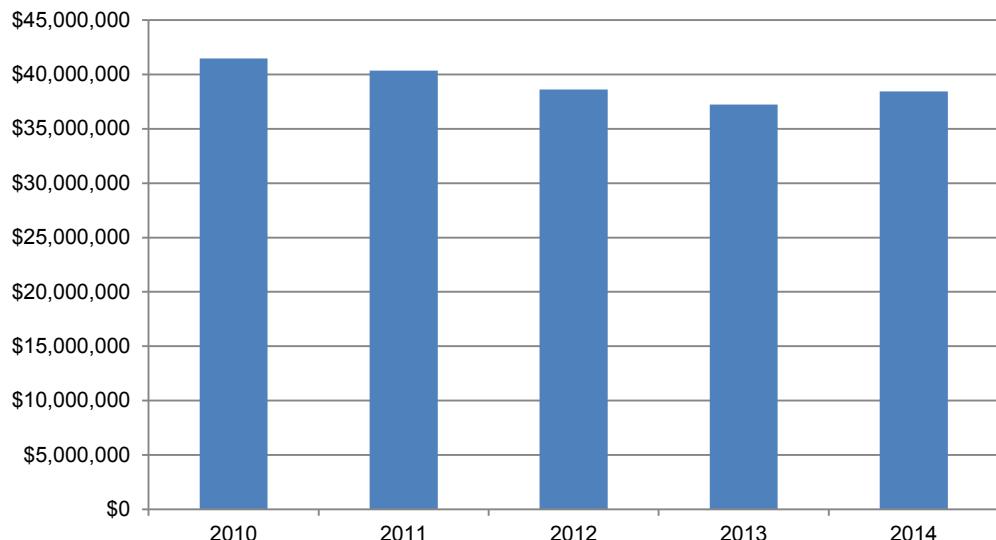
Source: Compiled by the Legislative Audit Division from SABHRS.

The services offered by SITSD vary in the amount of revenue they generate. Table 3 shows the top 10 services by revenue for fiscal year 2014.

Table 3
The Top 10 Services By Revenue for Fiscal Year 2014

Service	Total Revenue FY 2014
Enterprise Services Allocation	$6,166,105
Mainframe BATCH NonPrime Shift	$5,765,361
WAN Circuit Passthru	$3,699,948
Microsoft Enterprise Agreement	$3,262,165
Application Hosting .NET Server Environment	$2,981,790
Authenticated Network Device	$2,857,325
Remote Network Access	$2,345,020
Virtual Server	$1,975,409
Live Storage	$1,916,400
Long Distance	$1,509,183

Source: Compiled by the Legislative Audit Division from SITSD's SUBS and EMS billing data.

Chapter III – Service Development and Implementation of the Financial Transparency Model

Introduction

The State Information Technology Services Division (SITSD) offers a wide variety of information technology (IT) services to many customers throughout the state, including both state agencies and some local governments. SITSD develops rates for each of the services it provides using a rate-setting model called the Financial Transparency Model (FTM). Agencies are billed for services based on these established rates and the usage of services. Our first objective was to determine if SITSD's rate-setting model accurately reflects the costs and usage volumes associated with SITSD services and if SITSD appropriately manages risks associated with the rate-setting process. This chapter contains our findings related to these objectives.

FTM Rates Compared to Service Catalog Rates

Since SITSD uses FTM to calculate rates for services, we evaluated whether the rates produced are the rates that are subsequently advertised in the service catalog, which agencies use when making purchase decisions. SITSD performed separate calculations of its rates for fiscal years 2012 and 2013. Following this, SITSD decided to run the calculations per biennium instead of per fiscal year, since the fiscal year 2012 and 2013 rates came out to be very similar and the process of calculating the rates is complicated. Thus, the catalog rates for fiscal years 2014 and 2015 should be the same and the rates for fiscal years 2016 and 2017 should be the same.

We noted instances where the rate advertised on the service catalog did not match the rate output in the FTM model. For example, there were four mainframe services offered in fiscal year 2014 for which the calculated rate was higher than the rate advertised on the service catalog. This occurred because SITSD decided to reduce these rates mid-biennium due to higher than expected use of these services. Another noteworthy instance is that the annual rate produced in FTM for rack space at the Miles City Data Center for fiscal year 2013 came out to be almost $30,000, while the service catalog for fiscal year 2013 showed a rate of about $10,000. SITSD reportedly used the lower rate rather than the FTM rate in order to avoid discouraging agencies from moving equipment into this data center. Additionally, we verified that agencies were being billed at the advertised rate from the service catalog.

Agencies Are Consistently Billed the Same Rate for Services

We used SITSD's billing information for fiscal year 2014 to verify that agencies were being charged the same rate for services. We determined that SITSD's customers were being charged the same rate for utilization of services in fiscal year 2014.

SITSD Advertises Some Services as Pass-through

Some SITSD services are marketed in the service catalog as being charged as pass-through from outside vendors. For example, the Microsoft Enterprise Agreement, the Oracle License Agreement, WAN Circuit, Toll free 900, and International Calls are advertised as pass-through in the fiscal year 2014 service catalog. SITSD's online service index describes some services of this type as being billed as a direct charge of actual vendor costs. For example, the Structured Cabling service says "the customer is billed for actual charges incurred." The Oracle License Agreement service says it is billed as a percentage of the total service agreement cost. Both SITSD staff and its customers understand pass-through costs to be charges to agencies for services that only include the actual costs from the vendor.

Some Services Advertised as Pass-through
Are Not Actually Pass-through

While SITSD bills agencies for some of these services by including only direct vendor costs, like for WAN Circuit, SITSD adds an administrative fee or internal costs to the rates for some other "pass-through" services. For example, the Microsoft Enterprise Agreement is advertised as pass-through in the service catalog. However, internal costs for compensation, training, and expert time are added to the costs from the vendor before agencies are billed for this service. The vendor costs for the Microsoft Enterprise Agreement for fiscal year 2014 were around $2.7 million, but more than $500,000 in costs were added for SITSD expenses like compensation, training, and overhead.

For some services, it may be difficult to specify a per unit rate for a future biennium. The costs of future contracts may not be known at the time of rate-setting. It is also difficult to advertise a per unit rate for services that are billed based on full-time equivalent (FTE), on average number of users, or using a similar allocation method. For example, the costs for future contracts for the Microsoft Enterprise Agreement may not be known, as this depends on negotiations with the vendor. It may also be difficult to advertise a per unit rate for this service, since the total costs are allocated to SITSD's customers based on the average number of users. Thus, it may be appropriate that some of these services do not specify a per-unit rate. It may also be appropriate that these services include administrative fees. However, it is misleading when they are not marketed as such.

For other services advertised as pass-through, additional markup from the actual vendor costs was occurring due to a misunderstanding by some SITSD service providers of how FTM recovers various types of costs. For example, one SITSD service provider was charging an additional 25 percent markup for international long distance calling. We requested more information from SITSD management regarding these additional charges. Upon further review, they indicated they were unaware of this and these charges were inappropriate. They resolved the issue by discontinuing the practice.

SITSD Could Improve Transparency for Some Services Advertised as Pass-through

Services advertised as pass-through should only include the actual cost from the vendor with no additional markup for administrative fees or other internal costs. When services are advertised as being charged as a pass-through of vendor charges on SITSD's service catalog, customers think they are only paying actual vendor costs. Since SITSD adds internal costs to some of the services advertised as pass-through, customers are actually paying for some of SITSD's internal costs in addition to the costs from the vendor. Thus, SITSD could improve the transparency of its rates by advertising rates as pass-through only if they are truly pass-through.

RECOMMENDATION #1

We recommend the State Information Technology Services Division:

A. *Inform service provider personnel that the Financial Transparency Model recovers costs.*

B. *Only market services as "pass-through" if vendor charges are, in fact, passed through to customers without a markup.*

Review of Selected Services

In order to understand some of the inner workings of FTM, we selected a sample of SITSD services to examine in detail. We sampled 56 services provided by SITSD based on the following:

- The revenue the service generated in fiscal year 2014.
- The volatility of the rate for the service between fiscal year 2012 and fiscal year 2017.
- The number of agencies using the service in fiscal year 2014.
- Services which require prerequisites.

♦ Services for which the rate did not seem to reflect the value of the service relative to other similar services.

♦ Services whose costs, as shown in FTM, are much greater than the revenue generated in fiscal year 2014.

For these sampled services, we interviewed the SITSD service providers and sought to understand why the rates may have changed, why usage of the services may have changed, and how costs are allocated to these services. For each service that was selected, we also examined the expenses allocated to the service between fiscal years 2012 through 2017.

Allocation of Costs by Service Providers

Each service provider within SITSD leads a bureau (also referred to as a budget unit) and is responsible for providing a specific set of SITSD services. Each budget unit has its own FTM spreadsheet. Costs are allocated to services within this spreadsheet and are classified as either:

♦ **External Direct**: External direct costs, for most bureaus, primarily include the compensation for personnel associated with a service.

♦ **External Indirect**: External indirect costs include expenses such as equipment, hardware, and software purchased from outside vendors.

♦ **Internal Indirect**: Internal indirect costs represent the purchase of services from other service providers within SITSD.

♦ **Overhead**: Overhead costs include expenses that affect all bureaus within SITSD.

Expenses within a bureau, with the exception of overhead, can be allocated to a single service, to a subset of services, or to all services within the bureau at the discretion of the service providers. Expenses allocated to overhead by the bureau are allocated to all services within SITSD.

We interviewed the service providers within SITSD in order to understand how expenses for a future biennium are determined and how they are allocated in FTM to the services they provide. This process is reportedly time-consuming and complicated, but overall, the service providers expressed satisfaction with the use of FTM to develop service rates. Expenses for a future biennium are determined partially based on the previous fiscal year's expenses. The service providers review expenses from the previous year and determine if and how these expenses will change for the future biennium. The service providers factor in upgrades and changes to their services, as well as significant changes in the utilization of the service when determining expenses for a future biennium.

Most of the service providers acknowledged the importance of maintaining service rates that are competitive. Some challenges to keeping rates competitive arise from the public nature of SITSD's provision of IT services. For example, it can be difficult to adjust rates based on changing market conditions when SITSD calculates rates on a biennial basis. It can also be difficult to maintain competitive rates for certain services, such as network services, since SITSD is required by statute to provide this service for all state agency customers and to maintain a certain level of this service, which can drive up costs compared to a private provider that can choose a service area and different service levels. The service providers explained that the main way in which they can decrease their rates is by soliciting greater usage of the service by agencies. Aside from changing use, the other way to change a rate is by reallocating expenses for the service within FTM.

CONCLUSION

In general, the service providers within SITSD recognized they were operating in a competitive landscape and sought to make their rates competitive with outside benchmarks.

Opportunities to Improve Some Specific Aspects of the Rate-Setting Process

The following sections further describe the rate-setting process within SITSD and identify specific areas in which the rate-setting process could be improved by enhancing involvement and review by SITSD's management team. Several issues are discussed, followed by a single recommendation.

Rate Volatility

Several of the services we sampled were chosen because the rates had changed significantly between biennia. The service providers noted the following two primary reasons for fluctuation in a rate:

1. Utilization of the service changed significantly.
2. Costs for the service changed significantly.

Utilization-based Rate Changes

An example of a utilization-based rate change is the rate for Video Conference Management. The hourly rate for Video Conference Management went from roughly $39 per conference site for fiscal year 2015 to a projected rate of $134 per hour per site for fiscal years 2016-17. The primary reason for this was that the projected utilization

of this service decreased, with 1,875 units forecasted for fiscal year 2015, but only 200 units forecasted for fiscal year 2016. SITSD staff acknowledged the demand for services like this one can be difficult to forecast. Since the rate for any service is calculated by dividing the total costs for the service by the number of units forecasted, the rates for some services can fluctuate greatly with changes to the utilization estimates.

Cost Allocation-Based Rate Changes

Other service rates change primarily due to a change in the costs for the service. The service providers within SITSD have fine-tuned the allocation of costs to services since the implementation of FTM. For example, the annual Dial Tone rate was around $13 in fiscal year 2013 and went up to about $82 in fiscal year 2014. This happened because some expenses had been misallocated to other services in fiscal year 2013, when they should have been allocated to Dial Tone.

Costs for services can change in a variety of cost categories, such as external direct, external indirect, or internal indirect costs. For example, service providers have altered compensation costs allocated to each service to more accurately reflect the time spent on the service. Changes to external indirect costs can also influence a rate for a service. Some changes to external indirect costs cannot be controlled by the service providers within SITSD. For example, one of the external indirect expenses for the FileNet Enterprise Licensing service is a licensing cost, which is controlled by the vendor. Other external indirect expenses can be controlled by SITSD service providers. Another example of changing external indirect costs is for Rack Space at the Miles City Data Center. These external indirect costs have decreased since fiscal year 2012 because SITSD purchases fewer racks as the data centers fill up. Higher external indirect costs for this service in fiscal year 2012 were due to start-up costs, including the costs of moving equipment and network installation.

Changes to internal indirect costs allocated to a service can also occur. Internal indirect costs refer to the purchase of services from other bureaus within SITSD by a service provider in order to provide their own services. For example, the Network Technology Services Bureau (NTSB) purchases data center services from the Enterprise Support Bureau (ESB) within SITSD. Some of the internal indirect costs for Authenticated Network Device, which is provided by the NTSB, went up between fiscal years 2012 through 2015 partially because the leasing rate at the state data center went up. The internal indirect costs went down for other services, like Email. This happened because the data storage rates from another bureau within SITSD had decreased, which subsequently decreased the rate for Email.

Rates Sometimes Do Not Reflect Value

Some services we sampled were selected for review because the rates did not seem to reflect the value of the services, relative to other similar services. For example, the annual rate for Rack Space at the Miles City Data Center for fiscal year 2014 was $10,551, while the annual rate for Rack Space at the State of Montana Data Center in Helena was $6,184. Data center management originally wanted to keep the Rack Space rates the same for both data centers. However, they decided against it since each data center had a different set of costs, a different set of vendors, and a different number of users. The Miles City Data Center has more costs with fewer users, while the Helena data center has fewer costs with more users.

Another example of rates which did not seem to reflect the appropriate value is seen in the difference between the rates for two of the phone types provided by SITSD, an Analog Wall Set and an Analog Desk Set. These two phone sets are advertised as having the same features, with the only difference being the mounting position. However, the rate for one is roughly double the rate for the other. The projected fiscal year 2016 annual rate for the Wall Set is $148.76, while the rate for the Desk Set is $75.55. We also found that some of the rates for the multi-feature phone sets were lower than the rates for more basic phone sets. The service provider cited changes to use of the different types of phone sets as the primary driver of these rates.

Estimation of Billable Hours

Part of the cost allocation process within FTM requires that each service provider estimate how many billable hours will be allocated to each service within their budget unit prior to a biennium. The more billable hours allocated to a service, the higher the rate for the service. Each SITSD service catalog item also has a SABHRS time code to which SITSD employees can allocate time spent. There were a few services for which there were large differences between the budgeted hours for the service, as reported in FTM, and the time recorded for the service in SABHRS. For example, over 7,500 hours were budgeted in FTM for Helena Campus Network Access in fiscal year 2014, while fewer than 100 hours were charged to the SABHRS time code for this service.

The expenses for a future biennium are determined partially based on the previous year's expenses. The service providers explained that they typically look at the time spent on each service from the previous year in order to estimate the number of billable hours for an upcoming biennium. We noticed many services for which, as expected, the estimated billable hours for fiscal year 2016 were adjusted according to the actual amount of time from fiscal year 2014. There were, however, several services for which the estimated billable hours did not seem to be adjusted relative to the amount of time

spent on the service. For example, about half of the time forecasted in fiscal year 2014 for one of the mainframe services was allocated to this service, yet the estimated time for this service in fiscal year 2016 increased. Similarly, the amount of time charged to Video Conference Management was almost tenfold what was forecast for fiscal year 2014, yet the fiscal year 2016 estimated billable hours decreased.

CONCLUSION

There are significant differences in the number of hours budgeted for some services in FTM and the number of hours charged to these services in SABHRS.

Forecasting Usage of SITSD Services

Along with the allocation of costs to services, the forecasting of usage of SITSD services is a key part of the FTM process. Prior to a biennium, customers of SITSD estimate how many units of each service they plan to purchase based on usage figures from the previous biennium. Service providers then use these estimates to obtain preliminary rates by dividing the total costs for each service by the total number of units forecasted. If the service providers believe there will be more usage of a service than the customers estimated, they can add usage to services within FTM under a category called "Miscellaneous-New." SITSD has never, as of yet, used this category to decrease estimated usage. This "Miscellaneous-New" category is used to some extent, but the service providers primarily rely upon agencies' usage estimates.

Both the agency survey and interviews with agency staff revealed that forecasting service usage for an upcoming biennium can be difficult due to continual change within IT and within an agency's IT business needs. Usage of certain services can be more difficult to predict than others. For example, it can be difficult for agencies to estimate the number of hours of professional service they will need or the number of telephone conference calls they will need to make for an upcoming biennium.

SITSD staff highlighted the inaccuracy of forecasted usage as one of the main difficulties in establishing competitive rates. There are many instances where SITSD under-recovers costs for certain services due to agencies forecasting more usage of a service than what they actually end up using. Agencies which overestimate the usage of SITSD services are free to use the appropriations authority for IT services or other operating expenses within the agency. An issue can also arise when agencies underestimate their usage of services, potentially leaving the service providers unable to meet demand.

The accurate forecasting of usage of SITSD services by agencies is critical to the rate-setting process.

Services With a Large Percentage of Fixed Costs

There are some services provided by SITSD that have a large percentage of fixed costs. That is, the cost of providing the service would not go up significantly if utilization increased, at least up to a certain level of increase. Rack Space at either of the state's data centers is one example. The projected annual rate for Rack Space at the State of Montana Data Center (SMDC) for fiscal year 2016 is $7,154. Since many SMDC costs would remain relatively stable with more utilization, such as compensation costs, maintenance contract costs, and rent for the building, SITSD estimates that this rate would decrease to $5,732 if 40 new racks were added or to $5,100 if the data center was filled to its current capacity. Significant cost increases would not be realized until more space was needed. The mainframe rates were also noted as rates that would decrease with increases in utilization. The mainframe equipment is designed to operate at 100 percent capacity. However, the service provider noted daily usage is around 20 percent.

Balancing Authority and Responsibility

The service providers, for the most part, have authority to allocate expenses in FTM as they deem necessary, as they are the service experts. However, they have no input on the final amount of overhead allocated to their services. Because the service providers have complete discretion over the allocation of most costs and because the types of services they provide vary greatly, there is no standard for allocating costs across the service providers within SITSD. Each bureau has its own way of forecasting and allocating expenses in FTM.

We identified a few services for which the allocated costs in FTM appeared to be more strategic in nature, had a questionable allocated amount, or had an expense label that was not transparent. For example, the Network Technology Services Bureau includes a long-term planning expense titled "Professional Services to Develop 5 Year Strategy" in some of its rates, including Dial Tone, Voice Mail, Long Distance, and the rates for phone sets. Other service providers did not include such strategic expense types in their rates. This bureau also allocates $10,000 per year for repair and maintenance on each of the phone sets they provide, regardless of the number of each type of phone in use. Some of the expenses listed in the external indirect costs for services within this bureau

had the same name as the service itself, making it difficult to justify the expense. For example, one of the external indirect expenses listed for the Helena Campus Network Access service is titled "Helena Campus Network Access."

Oversight of the service providers is limited. Service providers manage their own cost allocations within FTM, but changes to initial expense allocations must be approved by staff from the Financial Management Services Bureau within SITSD. Though the service providers allocate costs within FTM, the executive team within SITSD is primarily responsible for ensuring break-even on services. The originator of the FTM rate-setting model says those responsible for ensuring services break even should have final authority for making decisions related to services.

RECOMMENDATION #2

We recommend the State Information Technology Services Division enhance its oversight of cost allocations, billable hours allocation, and service usage estimates provided by the service providers for use in the Financial Transparency Model.

Implementation of New Services and Removal of Services

Currently, potential service offering ideas are brought forth from a variety of sources. Most new services start with an agency expressing a business need to either the service providers directly or to SITSD's Customer Relationship Managers. Service providers can also submit ideas based on what they observe to be a need or based on knowledge of a new technology. Once initial interest is established, the process for making changes to service offerings or implementing new services is conducted using a Service Offering Decision (SOD) brief. The use of a SOD brief is relatively new, as it was implemented in fiscal year 2014, and is a formal documented means for adding, changing, or removing a service or multiple services.

A SOD brief typically contains sections including:
- A description of the proposed service(s) or change to the existing service(s).
- A short description of customer impact.
- SITSD resource requirements.
- Potential rates and cost savings.
- A recommendation of action related to the service (add, change, or remove).

Once the SOD is completed, it is submitted to and reviewed by the executive team within SITSD, including the State Chief Information Officer. Each member of the executive team either concurs with the SOD or does not concur and provides justification for the nonconcurrence. If all members concur, the recommendations from the SOD take effect. Though the SOD brief includes a brief discussion of customer impact, the decisions to change or add services are made solely by SITSD personnel. Thus, SITSD may provide some services that are used by few agencies and services that may not always recover the costs of providing them.

In our survey, agency personnel expressed a desire for greater input on the decisions made by SITSD. Though the survey respondents noted they preferred the FTM rate-setting method to the previous flat desktop rates, they were split on whether they thought FTM has achieved fully transparent and comparable rates for IT services. Forty-three percent of the survey participants reported they did not fully understand the cost components of the rates for SITSD services. SITSD's customers have limited ability to provide input related to service catalog decisions and what costs get allocated to services. However, SITSD has begun to convene conversations with agency finance and IT representatives to resolve some of SITSD's funding challenges.

SITSD continually makes decisions related to service offerings, whether it be to implement a new service, to modify an existing service, or to remove a service. The agency survey results showed, while 63 percent of the respondents agreed they are satisfied with their overall experience with SITSD, over 80 percent thought their organization should be able to provide more input on the decisions made by SITSD that could affect their organization. Some of the survey respondents expressed concern that SITSD does not fully understand or take into account the business needs of agencies in the services they provide, and approximately half of the survey participants responded that SITSD's services unnecessarily exceed their organization's needs. Table 4 (see page 26) details some of these results from the agency survey.

Table 4
Results From the Survey of SITSD Customers

Survey Question	Responses					
	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree	Unable to Provide an Informed Opinion
FTM was designed to produce transparency and comparability of rates for IT services. Do you agree that the FTM has accomplished this goal?	3%	29%	20%	23%	15%	10%
I understand the cost components of the rates for SITSD services.	9%	34%	12%	23%	20%	2%
I am satisfied with my overall experience with SITSD.	11%	53%	13%	15%	7%	0%
My organization should be able to provide more input on the decisions made by SITSD that will impact my organization.	49%	31%	12%	3%	0%	5%

Source: Compiled by the Legislative Audit Division.

Enterprise Services Fee

Separate from the rates on the service catalog that are charged based on use, SITSD also charges agencies an Enterprise Services fee. This fee is charged to all agencies in order to recover SITSD expenses for services or activities that affect all state agencies or those that SITSD is required to provide. For example, the cost of developing a statewide IT plan affects the state as a whole, is required by statute, and is thus allocated to Enterprise Services. The Enterprise Services fee makes up a significant portion of the amounts billed to agencies. The Enterprise Services fee for fiscal year 2014 was a little over $6.1 million and was charged to agencies based on their average number of users with computer network access. Agency personnel raised concerns over what expenses are included in the Enterprise Services fee.

Involvement of Agencies in IT Service Decisions in Other States

Part of our audit work included learning about how other states' IT departments provide IT services and the extent to which their customers are involved in the process.

We contacted IT department personnel from seven regional states, including the state of Oregon, which recently implemented the same rate-setting model as SITSD. Similar to Montana, most of these states rely on the customers and their IT department staff for new service offering ideas. However, several states, like Oregon, have more formal processes for implementing services, which include presenting a business case for new services to several entities, one of which is a board of customer representatives. This board is not only responsible for representing the IT department's customers, but it is also responsible for settling unresolved IT service disputes and reviewing the rate-setting methodologies and resulting rates.

RECOMMENDATION #3

We recommend the State Information Technology Services Division obtain more input from its customers when making decisions related to service offerings, including the enterprise services rate, by inviting agency participation in the Service Offering Decision process.

FTM: A Positive Step With Opportunities to Improve

The basic concept underlying the FTM rate-setting method used by SITSD is widely-accepted. Each of the seven other states' IT department staff reported using similar methodology for establishing rates for IT services. That is, the primary way IT departments calculate a rate for a service is by determining what all the costs of providing a service are, including hardware, software, and personnel, and dividing these costs by the number of users of the service. This chapter discusses several potential improvements that could be made to the rate-setting process, such as ensuring accurate forecasting of service usage, enhancing customer involvement, and improving the transparency of certain rates. Our overall conclusion, however, is that the FTM model is a well-accepted method of determining rates for IT services, has alleviated problems with subsidies, and has generally improved transparency. Since SITSD has now been through several iterations of the FTM process, the model should be mature enough to allow for comparison of SITSD costs to outside benchmarks.

Chapter IV – Comparing Rates to Benchmarks

Introduction

In the previous chapter we discussed ways in which the State Information Technology Services Division (SITSD) can help ensure the rates it charges agencies for services accurately reflect costs and can enhance customer involvement in service offerings. This chapter describes our work to analyze how SITSD rates compare to rates for similar services and to identify options for lowering information technology (IT) costs.

Financial Transparency Model Designed to Allow for Rate Benchmarking

When fully implemented, the Financial Transparency Model (FTM) used by SITSD to set rates is designed to ensure that rates can be compared to alternative providers by including all of the costs (and only those costs) that another provider would also include in its rates. The ability to benchmark rates is touted as one of the chief benefits of implementing such a model. Montana has taken all necessary steps to implement the model to its highest level.

Rate Benchmarking is a Valuable Tool for Customers, Service Providers, and Taxpayers

By comparing SITSD service rates to alternative providers both customers and the providing agency can make decisions about how to best allocate resources. The architect of the rate-setting model describes the value of fully-burdened rates in that they "communicate valuable information to clients. They represent the true cost to… taxpayers…of all purchase decisions. With this information, clients can decide whether or not it's economic to buy a product or service." The developer of FTM goes on to say:

> "Unlike high-level statistics such as total spending on a function or gross costs by high-level category, rate comparisons answer the question, 'Can I buy the same product or service for less money elsewhere?' This is the most accurate and meaningful form of benchmarking. This metric provides an incentive to eliminate any unnecessary spending, and to operate as efficiently as possible, including optimizing internal processes and using vendors (strategic sourcing) whenever it will bring rates down. By the way, benchmarks can be a powerful marketing tool for internal service providers who offer better rates than vendors and decentralized suppliers. Even if there are some specific areas that need improvement, the openness builds trust and usually buys managers time to improve and beat their competition."

Other States Benchmark Against Alternative Providers

As part of our audit work, we contacted representatives from IT departments in seven other states. These states ranged from totally centralized in regard to the procurement of IT services to completely decentralized. The more decentralized states had IT departments that acted as brokers of IT services and did not require agencies to use their services. In the states that were at least partially consolidated, agencies procured some services through the state's central IT department but were free, with some approval necessary, to procure other services from alternate sources.

Montana is "partially centralized" in that SITSD is required to provide a few services but agencies are not required by law to use those services. SITSD provides a wide variety of services in addition to those required, though it also obtains a number of services through private vendors and offers a master IT contract for vendor services.

Most of the states we spoke with do some sort of review of the rates for IT services after they are calculated. The type of review varied by state and included methods such as:

- Convening a customer group to review rates.
- Using internal staff to compare rates to other states.
- Contracting with an independent consultant to compare rates to other state and private providers.

Utah regularly hires a consultant to benchmark its rates against other states and private vendors. Utah has performed annual benchmarking studies since fiscal year 2008 and reports that the process has helped identify noncompetitive rates and has led to a reduction in the number of rates that are identified as problematic. When it first performed a benchmarking analysis, Utah found that 21 percent of its rates were classified as "less reasonable value," typically meaning the service rate fell in the bottom quartile of comparable services. After several iterations, Utah has reduced the number of rates in this category to zero.

Comparing Montana's Rates

To date, no formal rate benchmarking has been attempted in Montana. Prior to implementing FTM, it would not have been possible to do so. Though we have identified a few potential areas for improvement discussed in the previous chapter, FTM now produces rates that should generally reflect the true cost of providing a service.

Conducting a rate comparison can be difficult because of differences in the quality of a service or other differences between providers such as population density or technical

requirements. Because of this there may be legitimate reasons that a rate is identified as not reasonable in comparison to alternatives. However, now that FTM is mature enough to allow rate comparisons the creator of FTM says that IT departments "may rightly fear that fully burdened costs will chase customers to the competition (decentralization and outsourcing). In fact, in like-to-like comparisons, this is rarely a concern. And if it is, a serious business problem needs to be addressed." This means that if, following a comparison to like services, SITSD rates are not reasonable, the organization should take steps to address the cost allocation, method of delivery, or even make decisions about whether a service should be offered at all.

Montana Rate Study

To assess how Montana's IT rates compare to other providers, we hired a consultant to conduct a benchmark analysis of SITSD rates for selected services. Using an outside consultant provides several advantages:

- The consultant specializes in the area of IT and has conducted rate comparisons for several other states.
- Data had already been collected by the consultant related to the rates for services in other states and through private vendors.
- The Legislative Audit Division is a customer of SITSD, so using an outside consultant helps ensure the analysis is independent and unbiased.

We selected a set of SITSD rates to be compared based on a variety of factors. We wanted to ensure the comparison included some high revenue rates, some services that are used by a wide variety of agencies, diverse types of services, and to leverage the data that had already been collected by the consultant. The following ten types of services were selected:

1. Data Center Space—both full and partial rack rates at the Helena and Miles City data centers
2. Mainframe Disk Storage
3. Mainframe services per second
4. Telephone Conferencing
5. Telephone Services—including both phone set and dial tone
6. Long Distance
7. Email
8. Application Hosting
9. Application Development
10. Live Storage

SITSD rates were analyzed against ten peer state government organizations representing multiple population levels and geographic dispersion patterns and against private sector provider data where the consultant already had this data in its library. The ten other states included in the study were:

1. Alaska

2. Arizona

3. Colorado

4. Kansas

5. North Dakota

6. Oregon

7. South Dakota

8. Utah

9. Washington

10. Wisconsin

The consultant reviewed data to identify comparable services, normalized benchmark rates, categorized the relative position of SITSD rates versus benchmark rates, and provided recommendations. Rates were assigned to one of four categories based on their overall value. Those categories are:

- **Best Value**: Considering services offered, Montana's rate is significantly lower than the majority of benchmarked rates.

- **Very Reasonable Value**: Montana's rate is slightly lower than most benchmarked rates.

- **Reasonable Value**: Montana's rate is comparable to most benchmarked rates.

- **Less Reasonable Value**: Montana's rate is higher than most benchmarked rates and the cost basis should be analyzed to see if a reduction is possible.

The categorization does not reflect the quality of the service provided. Figure 3 (see page 33) displays the results of the analysis.

Figure 3
Results of the Benchmarking Study

Service	Low Rate	High Rate	Median Rate	Avg. of All Rates	SITSD Rate	SITSD Position*	Assessed Value of SITSD Rate
Email	1.95	14.66	4.41	6.23	1.95	1/17	Best Value
Phone (phone set and dial-tone)	19.19	41.48	28.00	29.09	21.78	2/7	Best Value
Long distance	0.03	0.12	0.04	0.06	0.074	8/10	Less Reasonable
Telephone conferencing	0.02	0.12	0.07	0.07	0.08	5/8	Reasonable
Application development (labor)	58.00	107.30	90.00	85.56	104.00	14/15	Less Reasonable
Live storage	0.2000	1.5360	0.6300	0.6878	0.4100	3/12	Very Reasonable
Mainframe disk storage (MB/mth)	0.0011	0.0459	0.0055	0.0138	0.0274	7/8	Less Reasonable
Application hosting (virtual)	92.00	390.00	194.51	205.68	140.84	3/8	Reasonable
Rack space - SMDC (full rack)	345.00	1500.00	800.00	845.78	515.38	4/11	Very Reasonable
Rack space - MCDC (full rack)	345.00	1500.00	800.00	845.78	879.28	7/11	Reasonable
Rack space - SMDC (rack unit)	14.67	30.00	23.98	22.88	23.98	2/3	Reasonable
Rack space - MCDC (rack unit)	14.67	40.81	30.00	28.49	40.81	3/3	Less Reasonable

Source: Compiled by the Legislative Audit Division from the results of the benchmarking study.

*Note: Though ten states were used for comparison purposes, not all states offered similar services so were not included and therefore fewer than ten comparisons were made. The number of compared providers may also be greater than ten because private providers were also sometimes included.

Implications of the Benchmarking Study Results

Based on these results, some SITSD rates appear to compare quite favorably to other service providers, while others do not appear to be competitive. Those that are not competitive may be costing the state a significant amount. Reducing costs for services would result in lower rates and cost savings for the state. In the following sections we discuss the potential savings for some of the services identified as having "less reasonable" rates and the savings for one of the services identified as having a "very reasonable" rate.

Long Distance

One of the SITSD rates that was assessed as "Less Reasonable" in terms of its rate is Long Distance. If long distance would have been offered at the median or average rate, agencies would have paid less for this service in fiscal year 2014. Table 5 (see page 34) shows what the total charges received from long distance for fiscal year 2014 would have been if the rate had been at the benchmarked median or at the average.

Table 5
Total Long Distance Charges Under Benchmarked Rates

Long Distance	Rate (per minute	Total Charges	Potential Savings
Actual	$0.074	$1,509,183	-
Median	$0.04	$815,775	$693,408
Average	$0.06	$1,223,662	$285,521

Source: Compiled by Legislative Audit Division from SITSD's billing data and the benchmarking study results.

Application Development

Another service that was identified in the benchmarking study as having a "Less Reasonable" rate was Application Development. Application Development is a professional service offered by SITSD that is charged on a per hour basis. Similar to long distance, if this service would have been offered at a more reasonable hourly rate, agencies would have paid less for this service in fiscal year 2014. Table 6 shows the potential savings for application development for fiscal year 2014 based on the median or average benchmarked rate.

Table 6
Total Application Development Charges Under Benchmarked Rates

Application Development	Rate (per hour)	Total Charges	Potential Savings
Actual	$104.00	$913,796	-
Median	$90.00	$790,785	$123,011
Average	$85.56	$751,773	$162,023

Source: Compiled by Legislative Audit Division from SITSD's billing data and the benchmarking study results.

Mainframe Disk Storage

The consultant also identified Mainframe Disk Storage as a service with a rate assessed as "Less Reasonable Value." Total revenue from this service for fiscal year 2014 was $474,584. In order to compare this service rate to rates from other providers, the consultant had to normalize the data in order to make an appropriate comparison, since the sales unit in which SITSD sells this service differs from other service providers. Thus, we were not able to quantify potential cost savings related to this service. However, since the normalized SITSD rate came out high in comparison to other providers, there are aspects of this service that could be addressed in order to lower the rate for this service.

of Montana to pay only for the storage that is actually being used. Table 8 shows the savings realized by offering live storage at the rate offered by SITSD rather than at the median or average rates.

Table 8
Savings Related to the Live Storage Service

Live Storage	Rate (per GB)	Total Charges	Savings
Actual	$0.4100	$1,916,400	-
Median	$0.6300	$2,944,712	$1,028,312
Average	$0.6878	$3,214,878	$1,298,478

Source: Compiled by Legislative Audit Division from SITSD's billing data and the benchmarking study results.

It is possible that the types of refinements to FTM discussed in the previous chapter can be made and will better match how costs are allocated to each service. This could reduce rates for certain services and make them more competitive with alternative providers. However, if FTM has produced a rate that accurately captures the full cost of providing a service and it remains noncompetitive, SITSD should reconsider how the service is provided to seek potential efficiencies or consider discontinuing the service altogether.

Service Portfolio Management

The creator of FTM notes, when utilizing FTM, "knowing the full cost of an organization's products and services is a fundamental component of an effective resource governance process. It impacts shareholder value, client relationships, strategic alignment, staff job satisfaction, and organizational performance. And it enables the implementation of an effective client-driven portfolio management process."

One of SITSD's new goals for the 2017 biennium is to create efficiencies through extended use of existing systems and improved business processes. An objective under this goal is to utilize Information Technology Service Management (ITSM) framework to improve SITSD business practices. Within ITSM there are several recommendations for Continual Service Improvement (CSI), including:

- ◆ **Service Review**: To review business services and infrastructure services on a regular basis. The aim of this process is to improve service quality where necessary, and to identify more economical ways of providing a service where possible.

- **Process Evaluation**: To evaluate processes on a regular basis. This includes identifying areas where the targeted process metrics are not reached, and holding regular benchmarkings, audits, maturity assessments and reviews.

- **Definition of CSI Initiatives**: To define specific initiatives aimed at improving services and processes, based on the results of service reviews and process evaluations. The resulting initiatives are either internal initiatives pursued by the service provider on his own behalf, or initiatives which require the customer's cooperation.

- **Monitoring of CSI Initiatives:** To verify if improvement initiatives are proceeding according to plan, and to introduce corrective measures where necessary.

Options for Service Improvement

There are a variety of options for service improvement. Within the benchmarking study the consultant provided several recommendations for improving SITSD's service offerings. Among these potential considerations were:

- Seeking rate reductions in those service areas deemed as "less reasonable" value by:
  ◊ Negotiating more reasonable long-distance rates.
  ◊ Reviewing the cost basis for application development.
  ◊ Modernizing and continuing to move away from legacy platforms.
- Seeking a more equitable rack space rate between SMDC and MCDC.
- Considering realignment of hosting service rates.
- Increasing rate values incrementally through continued pursuit of emerging technologies with cost optimization potential.
- Continuing to keep rates stable while adding services within defined rates to increase value.
- Assessing pass-through rates and negotiating rate reduction where possible.
- Analyzing which services are most frequently used and phasing out those less frequently used.
- Continuing to move toward a "customer-focused" approach by reviewing and defining service offerings and descriptions from a perspective of "marketing" SITSD services to agencies.
- Enhancing ease of service ordering and budget planning.
- Supporting a true 'apples-to-apples' services comparison.
- Conducting a customer survey on usability of the service catalog and implementing customer suggestions.

FTM is relatively new, so the ability to perform benchmarking analysis to date has been limited. In the past some rates did not appear to be set relative to value of a given

service and have been quite volatile year-to-year. FTM has now been refined to the point where benchmarking is a viable option. Other states perform regular benchmarking and have noted positive results. If an outside consultant performs the benchmarking, it may result in additional costs for SITSD. However, a benchmarking study would most likely result in cost savings by helping to identify inefficiencies within service offerings.

RECOMMENDATION #4

We recommend the State Information Technology Services Division:

A.   *Perform a biennial independent analysis of service rates compared to other providers, and*

B.   *Develop a plan to reduce the prevalence of noncompetitive rates and make services with noncompetitive rates more efficient or discontinue those services.*

DEPARTMENT RESPONSE

DEPARTMENT OF ADMINISTRATION

MONTANA DEPARTMENT OF ADMINISTRATION

"the backbone of state government"

Director's Office

Steve Bullock, Governor • Sheila Hogan, Director

May 29, 2015

Tori Hunthausen, CPA
Legislative Auditor
Legislative Audit Division
PO Box 201705
Helena, MT 59620-1705

RE: Audit#14P-01 Information Technology Rate Setting Process

Dear Ms. Hunthausen:

The State Information Technology Services Division with the Department of Administration has reviewed the performance audit of our rate-setting process. Our response to the recommendations appears below:

Recommendation #1:

We recommend the State Information Technology Services Division:

    A. Inform service provider personnel that the Financial Transparency Model recovers costs.
    B. Only market services as "pass-through" if vender charges are, in fact, passed through to customers without markup.

Response:

    A. We concur. SITSD will start the next iteration of FTM (2019 Biennium) shortly after FYE 2015. The Financial Management Services Bureau will conduct refresher training on FTM and remind all service providers that all costs included in the model are recovered through the rates calculated using those costs.
    B. We concur. SITSD will remind service providers that if we market a catalog item as a "pass-through," that we only charge the customer what the vendor charged SITSD. We will review the service catalog to ensure this is the case and make any necessary corrections.

Recommendation #2:

We recommend the State Information Technology Services Division enhance the oversight of cost allocations, billable hours allocation, and service usage estimates provided by the service providers for use in the Financial Transparency Model.

Response:

We concur. The Deputy CIO and SITSD's internal auditor will take an active role in reviewing and verifying service provider entries made in FTM.

Recommendation #3:

We recommend the State Information Services Division obtain more input from its customers when making decisions related to service offerings, including the enterprise services rate, by inviting agency participation in the Service Offering Decision process.

Response:

We concur. SITSD will leverage the Enterprise IT Financial Workgroup, which is a multi-agency governance forum created in 2014 that includes both financial and IT managers who are responsible for their agency IT budgets. This workgroup has already discussed reviewing IT service decision briefs as part of their charter. This would include the evaluating services based on enterprise requirements, demand and cost.

Recommendation #4:

We recommend the State Information Technology Services Division:

- A. Perform a biennial independent analysis of service rates compared to other providers, and
- B. Develop a plan to reduce the prevalence of noncompetitive rates and make services with noncompetitive rates more efficient or discontinue those services.

Response:

- A. We concur. SITSD will engage a contractor to perform a biennial independent analysis of our service rates as compared to other providers.
- B. We concur. We will develop a plan for competitive rates based on information from the independent rate analysis and recommendations made by the Enterprise IT Financial Workgroup.

Thank you and your staff for conducting the audit in a professional manner and providing SITSD with valuable information regarding our Financial Transparency Model.

Sincerely,
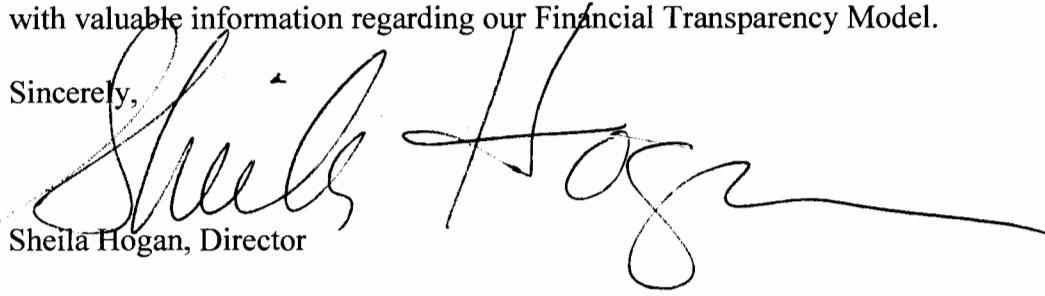
Sheila Hogan, Director

cc: Ron Baldwin, State Chief Information Officer